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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

IN RE: HIGH-TECH EMPLOYEE ANTITRUST LITIGATION THIS DOCUMENT RELATES TO: ALL ACTIONS	Master Docket No. 11-CV-2509-LHK **PLAINTIFFS' REPLY IN SUPPORT OF SUPPLEMENTAL CLASS CERTIFICATION MOTION** Date: August 8, 2013 Time: 1:30 pm Courtroom: 8, 4th Floor Judge: Honorable Lucy H. Koh

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[1] The deposition of witnesses who provided a report and a deposition are abbreviated as "[Last Name] Dep."; the deposition of witnesses who provided a deposition but not a report are abbreviated as "[Last Name]."

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INTRODUCTION

This case is not about one missed cold-call, one missed raise, or whether a single pay raise to a single employee would require the pay of thousands of other employees to be increased by exactly the same amount. Rather, this case is about anti-solicitation agreements to suppress entire channels of competition that Defendants themselves viewed as most threatening to their workforces and pay structures. The record is replete with express admissions by Defendants' senior executives that the agreements were intended to and did have the effect of suppressing pay of the Technical Class. Unable to address this testimony head-on, Defendants curiously dismiss it as "mostly old and off point." Opp. 19. They also now change course and admit as "unremarkable" Dr. Hallock's expert analysis that each Defendant employed formal and structured compensation systems and maintained internal equity across its employees, Opp. 3, a premise they vehemently challenged before the completion of scores of company witness depositions and production of tens of thousands of company documents over the last six months.

This time around, Defendants resuscitate a number of their "no impact" arguments.[2] They assert they do not pay their employees identical amounts; and that "11,850 different managers exercised their discretion to set compensation based on their evaluations of each employee." Opp. 3. They ignore that the Court has already accepted as common evidence of generalized harm Dr. Leamer's economic proof; the documents and testimony of Defendants' managers; and Dr. Leamer's statistical analyses and damages regression. Rather than meaningfully address or dispute it, Defendants try to distract the Court from the only real question at issue: whether Plaintiffs have put forward a plausible method, based on common evidence, of proving that Defendants' illegal agreements harmed all or nearly all members of the proposed Technical Class. Order 10, 15-17. The answer is manifestly yes.

Part One below addresses Defendants' unfounded attacks on Dr. Leamer's analyses.

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[2] This reply only seeks certification of a litigation class against Defendants Adobe, Apple, Google, Intel, and Intuit. Plaintiffs have reached a settlement with Lucasfilm and Pixar to settle all individual and class claims alleged in the Consolidated Amended Complaint on behalf of the proposed Technical Class identified in Plaintiffs' Supp. Mot., Dkt. 418, and Appendix B to Leamer I. Plaintiffs anticipate presenting the proposed settlement for the Court's consideration in the near future.

1   Plaintiffs have shown Defendants' misconduct did in fact harm all or nearly all Class members.

2   Dr. Leamer has bolstered his conclusion that, as a result of internal equity and information

3   sharing, suppression of compensation to some employees affected all or nearly all others,

4   particularly the Technical Class. In addition to his prior conduct regressions and his common

5   factor analysis, Dr. Leamer has performed a correlation analysis analyzing compensation levels

6   and a correlation of compensation changes. With respect to the correlation analysis, the vast

7   majority of titles at each of the remaining five defendant firms demonstrate a positive relationship

8   with average employee compensation. Dr. Leamer also has performed an additional multiple

9   regression analysis controlling for external common influences which shows that gains in

10 compensation are shared among members of the Technical Class at each firm. The gains are

11 shared both contemporaneously and over time. In other words, were there cold calls or other

12 events raising individual employees' compensation, such compensation gains were shared by all

13 or nearly all Class members.

14   Defendants argue that variation in their employees' pay precludes class-wide proof of

15 impact and is "flatly inconsistent" with any impact at all. Opp. 9. Their own expert disagrees:

16 "I'm not saying it's inconsistent." Murphy Dep. 438:13-18. Dr. Murphy also admitted that

17 averaging aggregate data is an appropriate statistical tool for exactly the same reasons given by

18 Dr. Leamer. *Id.* 553:18-20 ("The reason you do the averaging is so that you are left with a more

19 systematic part and the idiosyncratic parts get averaged out."). The argument that Dr. Leamer's

20 analysis suffers from an "endogeneity" problem is a hypothetical attack untethered from the

21 record evidence. Dr. Murphy's construction of alternative regressions to model the weather or

22 nationwide employment data is both flawed and pointless. Dr. Leamer provides reliable statistical

23 confirmation that Defendants maintained formal compensation structures across all titles in the

24 Technical Class, and demonstrates that the Class does not "swee[p] within it persons who could

25 not have been injured." Order 45 (quoting *Kohen v. Pac. Inv. Mgmt. Co.*, 571 F.3d 672, 677 (7th

26 Cir. 2009)).

27   Part Two rebuts Defendants' attack on the "unremarkable" conclusions of Dr. Hallock.

28 Dr. Hallock presents a reliable study demonstrating that Defendants maintained formal

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compensation structures and enforced internal equity across their employees, creating avenues of propagation through which pay suppression impacted all or nearly all Class members. Dr. Murphy confirms he ignored this evidence for purposes of his own work, and admits that Class member pay is consistent with Dr. Hallock's analysis. Murphy Dep. 442:24-443:9, 443:11-15. Like Dr. Murphy, Dr. Shaw ignored the evidence and relied on unsupported, and incorrect, assumptions. She admits she failed to investigate whether Defendants supervised and controlled their managers' use of discretion, and admits she did nothing to assess whether manager discretion, to the extent it existed at all, made any difference to employee pay. Shaw Dep. 74:1-75:16, 93:16-22, 98:14-15. Dr. Leamer also looks at the data to investigate two of Dr. Shaw's unsupported assertions: (1) that manager discretion rendered centrally managed compensation structures irrelevant to actual pay; and (2) that low-performing employees who received no pay increases could not have been impacted, making it impossible for all or nearly all employees to be affected by suppression. Dr. Leamer confirms these two assumptions are incorrect: ▮ of Class member employee-years were paid within prescribed ranges, and ▮ of Class member employee-years received salary increases or incentive pay during the conspiracy period. Leamer IV ¶¶ 31, 67.

Part Three puts to rest Defendants' passing attempt to revive their attack, via *Comcast*, on Dr. Leamer's damages regression. Defendants grossly mis-state its holding.

Defendants' experts make some truly remarkable assertions in their attempt to defeat class certification. Dr. Shaw says pay is completely committed to the whims of thousands of individual managers. Dr. Murphy says something different—Defendants paid their employees *randomly* based on employees' production "outputs," which apparently resemble weather patterns. Murphy Dep. 508:11-15 ("Q. So you think that the compensation – this respect, that the compensation of the defendants is comparable to the weather? A. In a statistical sense, I think it has some of the same properties."). This simply underscores that the Court should accept the unremarkable conclusions of Drs. Leamer and Hallock that Defendants created and enforced formal and structured pay systems that were suppressed by Defendants' misconduct, impacting all or nearly all Class members. The Court should certify the Technical Class.

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ARGUMENT

I.   **Dr. Leamer Has Provided The Confirmation Requested By The Court**

      Dr. Leamer's prior testimony provides economic evidence demonstrating how the anti-

solicitation agreements impacted the class, Order 17:6-21:3; copious documentary evidence that

the Defendants sought to maintain internal pay equity, such that the impact of cold-calling would

have spread beyond the recipients of the calls, *id.* 21:5-29:10; and a conduct regression showing

widespread and generalized harm to the class, *id.* 33:12-34:18. The Court found that this evidence

could be used to prove class-wide antitrust impact. *Id*. 20:20-22, 27:18-20, 33:6-10, 35:1-6.

However, the Court expressed concern that the class might be overbroad, because Dr. Leamer's

empirical analysis did not sufficiently show that the effect would have been shared by every or

nearly every member of the all-salaried class. Dr. Leamer's common factors analysis showed

each employee's compensation to be primarily driven by her job title—a fact beyond dispute at

this point. Murphy Dep. 457:4-6 ("95 percent of what he [Leamer] was getting was coming from

the job effects."). The Court however expressed concern that it did not show movement of wages

together over time. Order 36:3-7. Dr. Leamer's co-movement charts *did* show movement of job

title compensation over time, but did not do so comprehensively for each firm. *Id*. 37:1-21. The

Court also expressed concern that the co-movement of average pay by job title could be driven by

outside influences rather than by an internal pay structure. *Id*. 37:22-38:3.

      Dr. Leamer answered these concerns in his supplemental report. Dr. Leamer performed a

correlation analysis—the quantitative equivalent of the co-movement charts—that included all

members of the Technical Class at every Defendant. He performed a title-by-title correlation

analysis **capturing *94%*** of Class Period employee years. Leamer III ¶ 4. He performed a "decile"

correlation analysis applying to *100%* of Class Period employee-years. *Id.* ¶ 44. He analyzed both

correlation of compensation levels and correlation of compensation changes. *Id*. ¶ 23. In every

case, the vast majority of titles and deciles at each firm correlated positively over time with

average Technical Class employee compensation at the firm. Each of these approaches leads to

the same conclusion. Dr. Leamer also addressed the possibility that this co-movement might be

merely consistent with external common influences, rather than showing the existence of an

1   internal pay structure. Specifically, he used multiple regression analysis to assess whether gains

2   for a firm's Technical Class workers tend to be shared with individual job titles and also in a

3   subsequent year. He included competing variables to reflect external common factors such as the

4   firm's overall success or strength of the tech job market. Dr. Leamer's regressions demonstrate

5   sharing among different job titles (and deciles) and the overall Technical Class, even when

6   controlling for these possible influences. Leamer III ¶¶ 8, 24-28, 34-42; Supp. Mot. 22-25.

7   **A.   <u>Defendants' Attack on Averaging Misreads Relevant Caselaw</u>**

8   Defendants assert that Dr. Leamer may not draw conclusions by analyzing averages of

9   aggregate data, even if those averages are computed separately for each job title, for each year, at

10   each Defendant. This is incorrect. The Ninth Circuit has held "it is a generally accepted principle

11   that aggregated statistical data may be used where it is more probative than subdivided data."

12   *Paige v. California*, 291 F.3d 1141, 1148 (9th Cir. 2002) (citations omitted). Such techniques are

13   standard statistical tools. To answer the question of whether a relationship exists among job titles

14   the data must, by definition, be aggregated to that level. Leamer III ¶ 20; Leamer IV ¶¶ 4, 30. Dr.

15   Murphy agrees: "The reason you do the averaging is so that you are left with a more systematic

16   part and the idiosyncratic parts get averaged out." Murphy Dep. 553:18-20 (explaining decision to

17   average ACS data). Indeed, Dr. Murphy has used averaging in many of the thousands of

18   regressions he has run. *Id.* 565:5-7 ("I've used aggregate data before when aggregate data were

19   appropriate for answering the question."); *id.* 564:12-14 ("Q. Well, I mean isn't averaging a fairly

20   common thing to do in statistics? A. It is."). When asked whether averaging was novel, Dr.

21   Murphy responded it has been in use since the time of "cavemen." *Id.* 566:3-17. And, of course,

22   the Defendants themselves regularly aggregate and analyze their compensation data at the job title

23   level for business purposes. Indeed, when determining the competitiveness of their own pay

24   practices, Defendants often aggregated their entire compensation budget and compared it to the

25   budgets of other firms, Shaver Decl., Ex. 122; Cisneros Decl., Ex. 621 p. 3, or matched job title

26   compensation within the company to similar titles across multiple companies. Shaw ¶ 56 n.25.

27   Defendants rely principally on *In re Graphics Processing Units Antitrust Litig.*, 253

28   F.R.D. 478 (N.D. Cal. 2008) ("*GPUs*") for their argument that Dr. Leamer engaged in prohibited

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averaging. Opp. 1, 2, 6, 7, 13. But *GPUs* begins its analysis with an admonition:

> This order agrees that such methods, where plausibly reliable,
> should be allowed as a means of common proof. To rule otherwise
> would allow antitrust violators a free pass in many industries.

253 F.R.D. at 491. In *GPUs*, unlike here, the proposed class included a variety of purchasers who transacted in entirely different distribution channels: the same proposed class included consumers who purchased finished products online; Original Equipment Manufacturers, such as Dell, who bought parts wholesale; retailers, such as Best Buy; and other types of manufacturers, who bought chips and manufactured their own finished products. *Id.* 480. The Court's primary concern was whether the plaintiffs, all of whom only purchased finished products online from one of the defendants, should be permitted to represent a class of large institutional purchasers with average purchases of $19.2 million each. *Id.* Purchasers who resembled the plaintiffs—individual consumers—totaled only **0.3%** of the total commerce swept into the proposed class. *Id.* 480-81. Hence the Court found that plaintiffs were inadequate and atypical of the class they sought to represent, issues that are uncontested here. *Id.* 489-490. Plaintiffs' expert in *GPUs*, Dr. Teece, averaged across entire categories of products, and entire categories of purchasers, without addressing the substantial differences between consumer purchasers and massive institutional purchasers who were included in the proposed class. *Id.* 494-496. Most significantly, Dr. Teece's regression excluded the consumer purchasers altogether. This "failure to include individual consumers in the same model as the wholesale purchasers indicate[d] that proof [was] not common to the class . . . ." *Id.* 496. Nonetheless, despite these deficiencies, the court **certified** a class of 31,667 consumer purchasers who were typical of the named plaintiffs. *Id.* 497-498; *compare* Opp. 6 ("In *GPU*, Judge Alsup denied certification …"). *See also In re TFT-LCD Antitrust Litig.*, 267 F.R.D. 291, 313 (N.D. Cal. 2010) (distinguishing *GPUs*).

Defendants also rely on *Reed v. Advocate Health Care,* 268 F.R.D. 573 (N.D. Ill. 2009), but continue to ignore the two cases from the Circuit Court of Appeals that oversees the Northern District of Illinois: *Messner v. Northshore Univ. Health Systems*, 669 F.3d 802, 818 (7th Cir. 2012) and *Kohen*, 571 F.3d at 677. First, *Reed* expressly rejects Defendants' view that compensation must be analyzed at the individual level. *Id.* 590 ("we reject defendants' argument

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1   that each nurse defines her own individual market—as plaintiffs point out, the implication of this

2   argument is that no group of employers could ever suppress these nurses' wages, which defies

3   common sense."). Second, as Plaintiffs explained earlier, *Reed* is inapposite because the expert

4   there could only explain "between 48% and 63%" of the variance in wages across class members.

5   268 F.R.D. at 592. Further, for registry nurses (one fifth of the proposed class), the expert could

6   only account for 5-30% of the variation, and with respect to that subgroup admitted that a

7   "different approach must be used" for them because their pay took "little or no account of age,

8   tenure or unit of care assignment," but then failed to provide such an approach. *Id.* 593. Instead,

9   he calculated a single average suppression for all nurses in the class. *Id.* 590. In contrast, in Dr.

10   Leamer's analysis "the majority of the R-squared statistics are around 90 percent, demonstrating

11   that almost the entire variation in salaries within each firm at each point in time can be explained

12   by a common set of employee characteristics." Leamer I ¶ 129 (emphasis added). Drs. Leamer

13   and Hallock have also conducted numerous additional analyses confirming pay structures and

14   common impact, based not on any single average for the entire Technical Class, but on wages

15   computed separately for each job title, for each year, at each Defendant.

16   **B.   It is Irrelevant that Defendants Do Not Pay Employees in "Lockstep"**

17   Defendants next claim they "substantially differentiate individual employee compensation

18   within and across job titles, and compensation was not locked into such a tight grid that any

19   movement in one part necessarily affected the rest." Opp. 10. Pointing to variations from year to

20   year in the pay of individual employees, they say that because "managers had the flexibility to

21   differentiate" the impact would have been limited to those employees targeted by cold calls:

22   "[t]here would be no ripple effect." Opp. 11.

23   This is the same "no impact" argument Defendants and Dr. Murphy unsuccessfully made

24   before, down to virtually the same charts. *Compare* Murphy I ¶ 44 ("Thus, compensation does

25   not move in lock step across the Defendants.") *with* Murphy II ¶ 24 ("The exhibits confirm that,

26   rather than moving in lockstep, average job-level compensation changes in any given year vary

27   both in sign and magnitude[.]"); *compare* Murphy I, Ex. 18A/B *with* Murphy II, Exs. 7 and 8.

28   This failed argument holds even less merit now because Dr. Murphy no longer relies on the only

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evidence he ever had, Defendants' self-serving employee declarations, which have since been

disproved by contrary testimony.[3] Unable to cite to any evidence in the record, Dr. Murphy falls

back on "basic economics together with arithmetic," which he asserts tell him that if firms have

the flexibility to vary pay then they will not increase the pay of other workers just because some

targeted employees get a raise. Murphy Dep. 444:17-22. However, Defendants' own documents,

and basic compensation textbooks, show firms would have to do exactly that in order to maintain

internal equity. Order 32-33 ("The Court is more persuaded by the internal, contemporaneous

documents created by Defendants before and during the anti-solicitation agreements…").

There is nothing illogical, unreasonable, or "flatly inconsistent," Opp. 9:10, with Dr.

Leamer's finding that the Defendants simultaneously differentiated pay and maintained

compensation structures that commonly restrained that differentiation. Dr. Murphy himself has

admitted this many times. In 2012: "Q. Are you saying that internal equity is inconsistent with

differentiation of pay? A. No." Murphy Dep. 175:11-15; *see also id*. 259:20-260:1. In 2013:

> Q: So are you saying that a wide variation in compensation changes for
> individuals in the same job is inconsistent with internal equity having any effect on
> the magnitude or degree of those compensation changes? Are you saying those
> two things are inconsistent?
>
> A: I'm not saying it's inconsistent. […]

Murphy Dep. 438:13-18. Plaintiffs never argued that the impact of the agreements would have

been "lockstep"—that a $5 raise to one employee would have required a simultaneous $5 raise

across the firm. Rather, as the record proves, by shielding their employees from waves of

recruiting,[4] Defendants not only avoided individual raises, they also avoided having to make

across-the-board preemptive increases to compensation, such as Google did in response to

recruiting by Facebook. Mot. 10; Hallock ¶¶ 205, 213-214; Leamer IV ¶¶ 18-25; Sandberg Decl.

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[3] Ironically, Dr. Murphy says in 2013 that as an economist he is not competent to evaluate the documents and testimony that contradict his views, even though he relied heavily on Defendants' declarations for his opinions in 2012. Murphy Dep. at 443:12-15 ("I got no particular advantage of reading documents. I'm probably worse at reading documents than most people."). *See* Murphy I at ¶¶ 18-21 (citing declarations).

[4] As Bill Campbell (Intuit Chairman, Apple Director, and "coach" to Google's senior executives and Steve Jobs) explained at his deposition, anti-solicitation agreements prevented a competitor from going "A through Z" and calling "everybody that was a mid-level engineer and above . . . that was what I objected to." Campbell 30:16-22. *See also*, *e.g.*, Catmull 172:24-173:8; Geshuri 64:9-11, 121:15-18; Cisneros Decl., Ex. 614 ("We would be unrelenting and a force of nature.").

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1   For example, in 2005, Adobe considered increasing pay company-wide in direct response to

2   competition and widening pay gaps. Instead, it entered into a no-cold-call agreement with Apple.

3   Reply 19 (citing Harvey Decl., Ex. 17).

4   In fact, as Dr. Leamer explains, individual compensation levels is the wrong place to look

5   for evidence of a structure and common impact, because the "inherent noise in the individual

6   level data tends to drown out the signal of the internal pay structure we are trying to detect."

7   Leamer IV ¶ 32. Indeed, if one followed Dr. Murphy's approach and only studied individuals,

8   one would not even see Google's "big bang"—the signal is completely lost in the noise of

9   individual pay variations. Leamer IV at ¶¶ 32-35, Fig. 1. This shows the true purpose of the

10 "individual"-level approach: to mask the structure, not to find it.

11   **C.   Dr. Leamer's Regressions Do Not Suffer from Any "Fallacies"**

12   Neither Defendants nor Dr. Murphy make any criticisms of Dr. Leamer's methodology or

13 implementation. They raise no serious *Daubert* challenge. *See* Opp. 15. They do not identify a

14 single omitted variable; they do not offer a competing regression showing a lack of sharing.[5]

15 Instead, Defendants and Dr. Murphy resort to a series of baseless attacks. First, they claim the

16 regressions suffer from an "endogeneity" problem because they omit substantial "unmeasured

17 common factors." Murphy II at 17; *see* Opp. 13. But Dr. Murphy does not identify a single

18 omitted variable, or show how adding one would change the results. His "Technical Appendix" is

19 only a "hypothetical exercise," in which Dr. Murphy *assumes* he has added a hypothetical

20 variable "that explains half of the common effect." Murphy Dep. 480:14-16. Dr. Murphy only

21 identified two possible relevant factors, "firm level success" and "changes in the general

22 economy", but admitted at deposition that Dr. Leamer accounted for both in his regression by

23 adding variables for firm revenues and San Jose metro area employment. *Id*. 484:11-485:2 ("Q.

24 Well, you do agree with me that he included a variable that would account for firm level success.

25 A. Absolutely. […] Q. And you also agree that he included a variable that would account for

26

27 ---

    [5] The absence of these standard tactics is telling. *See* Conan Doyle, Sir Arthur I., "Silver Blaze,"
    Memoirs of Sherlock Holmes (1894) ("'The dog did nothing in the night-time.' 'That was the
28 curious incident,' remarked Sherlock Holmes.").

changes in the general economy, right? A. Yes, he did."). *Compare* Murphy II at 29, "Technical

Appendix" ("Compensation in each job is determined by two types of factors: (1) common

factors (firm-level success, changes in the general economy, etc.) …"). *See* Leamer IV ¶¶ 61-62.

Dr. Murphy's "reflection" and "reversion to the mean" critiques—relegated to a footnote

in Defendants' brief—are no more sound. Leamer IV ¶¶ 36-49. Dr. Murphy's own authority,

Professor Manski, explains that a "reflection" problem can be solved by studying lagged or

sequenced effects, just as Dr. Leamer has done here. *See* Leamer IV ¶ 42. Dr. Murphy admitted

this at his deposition. Murphy Dep. 476:24-477:2 ("Q. What about studying lagged effects? Isn't

that one way that Professor Manski suggests overcoming the reflection problem? A. Yes.").

Dr. Murphy's "reversion to the mean" critique depends on the assumption that employee pay is

substantially *random*—a bridge beyond even Defendants' contention that it is a matter of

manager discretion.[6] Dr. Leamer correctly characterizes this assumption of random compensation

as "implausible": "Defendants do not set annual title compensation the way that Mother Nature

chooses Chicago weather, day-by-day. Compensation levels in the Technical Class are all

determined thoughtfully by management, not by random devices." Leamer IV ¶¶ 44-48.

Last, Dr. Murphy creates his own regressions, but uses different data that is irrelevant

here. Rather than identifying a deficiency in Dr. Leamer's model, he purports to get similar

outcomes using weather data and generic nationwide survey data—supposedly proving his

"reflection" and "reversion" problems. Opp. 15, n. 5. Dr. Murphy's "weather" regression

compares Chicago and Milwaukee—but one need not be a meteorologist to expect to find a

relationship between the weather in two cities located fewer than 100 miles apart. Leamer IV

¶ 49. Dr. Murphy's "ACS" regression uses the results of a monthly survey that asks respondents

to report, as a lump figure, their income (and other household members') over the prior twelve

months. Self-reported survey data is subject to measurement error, unlike Defendants' payroll

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[6] *See*, *e.g.*, Schaffner, "Specious Learning About Reward and Punishment", *J. of Personality & Social Psych.* (1985) ("Statistical regression … *occurs whenever a measurement process includes random measurement error or accurately measures some partly random process.* The magnitude of regression depends on the extremity of the original score and the *degree of randomness*...") (emphasis added).

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1 records. Leamer IV ¶¶ 53-54. More fundamentally, the ACS methodology leads to obvious

2 problems when a survey response in March 2006 includes both 2006 and 2005 income, to which

3 Dr. Murphy applies other annual variables for the calendar year 2006. Leamer IV ¶¶ 55-56, Fig.

4 2. Dr. Murphy did nothing to address either of these problems, and several others, which renders

5 this work meaningless. Leamer IV ¶ 60. Furthermore, although Dr. Murphy claims his ACS

6 results are the same as Dr. Leamer's sharing regressions, in fact they show a much different

7 pattern and magnitude. Leamer IV ¶¶ 57-59, Figs. 3 and 4.[7]

8 **II.   Defendants Concede Dr. Hallock's Empirical Study and Dr. Shaw Ignores the
        Evidence and the Data That Disprove Her Unsupported Assumptions**

9

10   Defendants do not challenge Dr. Hallock's methodology, the admissibility of his opinions,

11 or his evaluation of the composition of the Technical Class.[8] Defendants now concede both

12 formal compensation structure and internal equity. Dr. Murphy reviewed Dr. Hallock's report, but

13 decided not to consider the documentary and testimonial evidence on which Dr. Hallock relied.

14 Murphy Dep. 443:11-15. Dr. Murphy also admitted his analysis of pay data is consistent with Dr.

15 Hallock's analysis of Defendants' efforts to maintain internal equity among their employees. *Id.*

16 at 442:24-443:9 (Q: "Did you do any investigation into whether or not your clients, these

17 defendants, actually cared about maintaining some level of equity among the compensation of

18 ───────────────

19 [7] Defendants misrepresent Dr. Leamer's testimony many, many times. Given page limitations, two examples will have to suffice. First, according to Defendants, Dr. Leamer "admits" impact can only be demonstrated on an individual, case-by-case basis. Opp. 3:5-8 (citing Leamer Dep.

20 624:25-625:15). Of course, Dr. Leamer said no such thing, and explained in the same testimony Defendants cite: "nothing I've done is dependent on individual linkages that you are making reference to -- or all this particular sequences that you're forcing me to comment on." Leamer

21 Dep. 624:25-625:15. Second, Defendants assert that Dr. Leamer "concedes" he is merely telling a "story," and not doing science. Opp.14:14-15:5. As Defendants well know, Dr. Leamer—one of

22 the world's leading authorities on statistical inferences from non-experimental data—is simply making the same point Dr. Shaw makes in her academic writings: a "good story" based on

23 "descriptive evidence" "can go a long way in reassuring the reader that the estimated model is a good way of interpreting the reality of the firm." Shaver Decl., Ex. 2847 at 614. *See also* Shaw

24 Dep. 43:13-44:12 (statistics requires "judgment"). As for Dr. Murphy, who intentionally ignored all available "descriptive evidence": "You know, if you want absolutes, talk to God." Murphy

25 Dep. 447:11-15.

26 [8] Defendants also consistently misrepresent Dr. Hallock's opinion as expressing merely a possibility that common impact "could" occur. *See* Opp'n 3, 17, 19. Dr. Hallock's conclusion is a

27 prediction that Defendants' anti-solicitation agreements suppressed the compensation of all or nearly all members of the Technical Class, as stated clearly in paragraph 256 of his report and

28 explained repeatedly at his deposition. *See*, *e.g.*, Hallock Dep. 155:2-157:18.

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1 their employees?" A: "I read Professor Hallock's report and some of the things he talks about

2 there. . . . I don't think there is anything that I'm saying that's at all inconsistent with the

3 existence of some attention to that.").

4   The Court should reject Dr. Shaw's analysis because her view that Defendants gave their

5 junior managers completely free reign to pay employees as each saw fit—*i.e.*, anarchy—is

6 demonstrably false and ignores the evidence.[9] *See* Mot. 20-22; Reply 16-24; Supp. Mot. 13-22;

7 Hallock ¶¶ 10-181. In reality, Defendants tightly controlled the relative distribution of pay

8 increases and bonuses. After determining its annual company-wide salary increase budget,

9 Morris Decl. ¶ 22, ██

10 ██. *Id.* ¶¶ 7, 11;

11 Arriada-Keiper 164:16-165:4. ***Google*** ███████████████████████████████████████

12 ██

13 █████████████████████████████████ Wagner Decl. ¶ 15-16, Ex. A at 11, Ex. B

14 (emphasis added). At year end, ██████████████████████████████████████

15 ████████████████████████████████. Cisneros Decl., Ex. 1609. ████

16 ██. McKell

17 46:7-20; 47:1-20; 75:14-20. ██

18 ████████████████████████████████. *Id.* 100:1-8; *see also* McKell Decl., Ex. B

19 at 76582DOC000783_000015 █████████████████. █████████████████████

20 ██

21 ██████████████████████████████ Stubblefield 81:2-83:6; Cisneros Decl.,

22 Ex. 2738. ***Apple*** ████████████████████████████████████. *See*

23 Burmeister Decl., Ex. C [231APPLE095051-52].

24   The Defendants were similarly consistent in their strict observance of title-based pay

25 ranges. ███

26

27 [9] Dr. Shaw relies in substantial part on the same canned declaration testimony the Court rejected, Order 32-33, and that Dr. Murphy now refuses to stand behind. Murphy Dep. 443:23-25. Dr. Shaw relies on these declarations over thirty-five times. Shaw 20-21 n.25 and n.26, 21 n.30 and n.32, and 23 n.35; Shaw App. C ¶¶ 1, 2, 3, 4, 7, 8, 10, 11, 18, 24; Shaw App. D ¶¶ 1, 9.

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1 ██. Arriada-Keiper 24:4-19. ████

2 ██

3 ███████████████████. *Id*. at 25:7-26:1, 69:25-70:8; 199:22-201:4; Morris 141:14-142:12

4 (██). ***Apple*** managers

5 regarded salary guidelines as "boundaries." Tony Fadell, a former senior executive, explained:

6 "So there is an HR and recruiting tool called Merlin, and it would say, this is the employee, this is

7 the level, here are the salary ranges, and through that tool we were then—we understood what the

8 boundaries were. And if we were to go outside of that, then we would have to pull in a bunch of

9 people to then approve anything outside of that range." Fadell 52:25-53:9. According to

10 ***Google***'s Director of Compensation, paying out of range was subject to a special approval process

11 and most employees were paid within range. Wagner 28:24-31:4. ***Intel*** compensation was

12 similarly title-driven. McKell 99:20-25, 101:2-5, 101:6-14 (manager "goes in and sees their

13 employees, enters a rating, performance rating, or promotion, demotion, grade level changes, and

14 based on the employee's rating and their position in the salary range … the tool recommends a

15 base pay raise associated with that."). ***Intuit*** routinely audited manager recommendations

16 regarding annual salary increases outside of recommended guidelines. Stubblefield 37:5-16. Intuit

17 also gave managers written equity guidelines for new hires. *Id*. 103:17-104:13; Cisneros Decl.,

18 Ex. 2739. ███

19 ██████████████████████████████████. Stubblefield 72:1-74.

20   Dr. Shaw's attempt to revive Defendants' failed argument that "internal equity" means

21 paying every employee the same wage, Shaw ¶ 43, relies on an admitted misrepresentation of the

22 only source upon which Shaw relies. Shaw Dep. 80:2-17; Shaver Decl., Ex. 2850 at 106-108. In

23 fact, Dr. Shaw understands "internal equity" the same way Plaintiffs do. Shaw Dep. 65:23-66:6.

24 Dr. Shaw did not bother to investigate whether "there were oversight mechanisms at any of the

25 firms to govern the discretion exercised by managers, by people above them in the line of

26 command[.]" *Id*. 93:16-22. *See also id*. 98:14-15 ("I don't know whether there were limitations

27 on managers' discretion"); *id*. 99:1-2 ("I don't know whether they were reviewed."). Dr. Shaw

28 never assessed whether manager discretion actually mattered. *Id*. 74:1-75:16 ("I haven't tested the

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1 extent of the impact of management's discretion."). When asked, she did not have any evidence

2 for her assumption that managers had "complete discretion." *Id*. 145:17-147:23.

3   Unlike Dr. Hallock, Dr. Shaw performed no analysis of the title-level pay ranges that

4 Defendants used to monitor and manage compensation across the companies. *Compare* Hallock

5 ¶¶ 10-109 and Figures 7-18, *with* Shaw ¶ 30. She did not even bother to look at the guidelines.

6 Shaw Dep. 92:17-18 ("No, I did not request to see guidelines from the firms."). Dr. Shaw then

7 assumes they were irrelevant, without making any effort to look at the evidence, violating the

8 methodological standards she exhorts in her academic work.[10] In addition, Dr. Leamer responds

9 to her argument by doing what Dr. Shaw should have done, Shaw ¶ 25: he compared Defendants'

10 job title salary ranges with the compensation data to determine the extent to which actual

11 compensation fell within prescribed guidelines. He finds that Dr. Shaw's unsupported assumption

12 is incorrect: █ of Class member employee-years for Adobe, Apple, Google and Intel (Intuit did

13 not produce usable data) were paid within prescribed ranges. Leamer IV ¶ 31, and Figures 6-9.

14 Finally, Dr. Shaw speculates that low-performing employees would not have been impacted

15 under any scenario. Shaw ¶ 65. Again, Dr. Leamer looks at data Dr. Shaw ignores, Shaw Dep.

16 183:8-185:5, and determines that █ of Class member employee-years received a salary raise

17 or incentive pay during the conspiracy period. Leamer IV ¶ 67.

18 **III.**   **The Damages Regression Continues to be a Plausible Method of Proving Damages**

19   Defendants claim that *Comcast Corp. v. Behrend*, 133 S.Ct. 1426 (2013), requires a

20 "method for calculating damages for individual class members." Opp. 23. Defendants

21 conspicuously fail to cite any language from the opinion that says this. *Comcast* turned on

22 concessions by the plaintiffs, 133 S.Ct. at 1430, and on their articulation of four distinct theories

23 of harm, only one of which could be proved on a class-wide basis using common evidence, *id.* at

24 1430-1431. *Comcast* did not overturn decades of cases holding that a class may prove aggregate

25

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26 [10] *See* Shaver Decl., Ex. 2847 at 614 ("Add descriptive evidence from insiders"), 615 ("Gather data and test the hypothesis"). In fact, Dr. Shaw's studies of the impact of company-wide human

27 resource practices mirror the methodologies Drs. Hallock and Leamer employ. Shaw Dep. 33:7-34:21; 36:18-44:12; 120:22-129:16; Ex. 2847; Shaver Decl., Ex. 2854 (regressions with 9 years

28 of data regarding 83,497 technical workers in 10 states controlling for similar common factors).

1   damages in an antitrust case. *See*, *e.g.*, *In re Cardizem CD Antitrust Litig.*, 200 F.R.D. 297, 324

2   (E.D. Mich. 2001) ("As observed by a leading commentator on class actions: 'aggregate

3   computation of class monetary relief is lawful and proper.'") (citing 2 NEWBERG ON CLASS

4   ACTION, § 10.05 (3rd Ed. 1992)).[11] If it had, it would have said so. 133 S.Ct. at 1433 ("This case

5   thus turns on the straightforward application of class-certification principles"); *see In re Urethane*

6   *Antitrust Litig.*, No. 04-1616, 2013 U.S. Dist. LEXIS 69784 (D. Kan. May 15, 2013) (denying

7   motion to decertify class post-*Comcast*) (the Supreme Court "has also noted that a wrongdoer

8   should not be able to insist upon a stricter standard of proof of the injury that it has itself

9   inflicted.") (citing *J. Truett Payne Co. v. Chrysler Motors Corp.*, 451 U.S. 557, 566-67 (1981)).

10   Defendants also continue to quibble with the substance of Dr. Leamer's damages analysis.

11   They provide no support or explanation for their contention that compensation needs to be

12   correlated *among firms* in order to use a single conduct variable for the conspiracy. Opp. 24. Dr.

13   Leamer explains that Dr. Murphy's alternative regression is inferior because it fails to take into

14   account employee age differences, allows less employer differentiation, and ignores business

15   cycle effects. Leamer IV ¶¶ 64-65. It is simply a restricted version of Dr. Leamer's own model.

16   *Id.* With respect to the Court's invitation to Dr. Leamer to consider whether any additional

17   variables would be appropriate, he has considered the question and has not identified any. His

18   model is supported by the economic literature (including Dr. Shaw's), is statistically robust (i.e.,

19   insensitive to alternative control variables), and is buttressed by Dr. Leamer's subsequent

20   analysis. He stands by it. Leamer IV ¶ 66.[12]

21   **CONCLUSION**

22   For the foregoing reasons the motion should be granted.

23   ---

[11] *E.g.*, *In re Flat Glass Antitrust Litig.*, 191 F.R.D. 472, 486 (W.D. Pa. 1999) ("There is no
24   dispute that when used properly multiple regression analysis is one of the mainstream tools in
      economic study and it is an accepted method of determining damages in antitrust litigation.");
25   *City of Tuscaloosa v. Harcros Chems.*, 158 F.3d 548, 566 (11th Cir. 1998) (upholding expert
      testimony on antitrust damages based on a "multiple regression analysis, a methodology that is
26   well-established as reliable"); *Johnson Elec. N. Am. Inc. v. Mabuchi Motor Am. Corp.*, 103 F.
      Supp. 2d 268, 283 (S.D.N.Y. 2000) ("Numerous courts have held that regression analysis is a
27   reliable method for determining damages ...") (citation omitted).

[12] Defendants concede adequacy. Class proceedings will be superior because common issues,
28   including the question of impact, predominate over individual ones. Order 46.

PLAINTIFFS' REPLY ISO SUPPLEMENTAL CLASS
CERTIFICATION MOTION
CASE NO. 11-CV-2509 LHK

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Dated: July 12, 2013   LIEFF CABRASER HEIMANN & BERNSTEIN, LLP

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